

Shipping and the Environment

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What Maersk Line are doing to improve environmental performance and how the Government can help

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Agenda

- Shipping and the Environment
- Our Journey towards Sustainability
- How the Government can help
- Summary

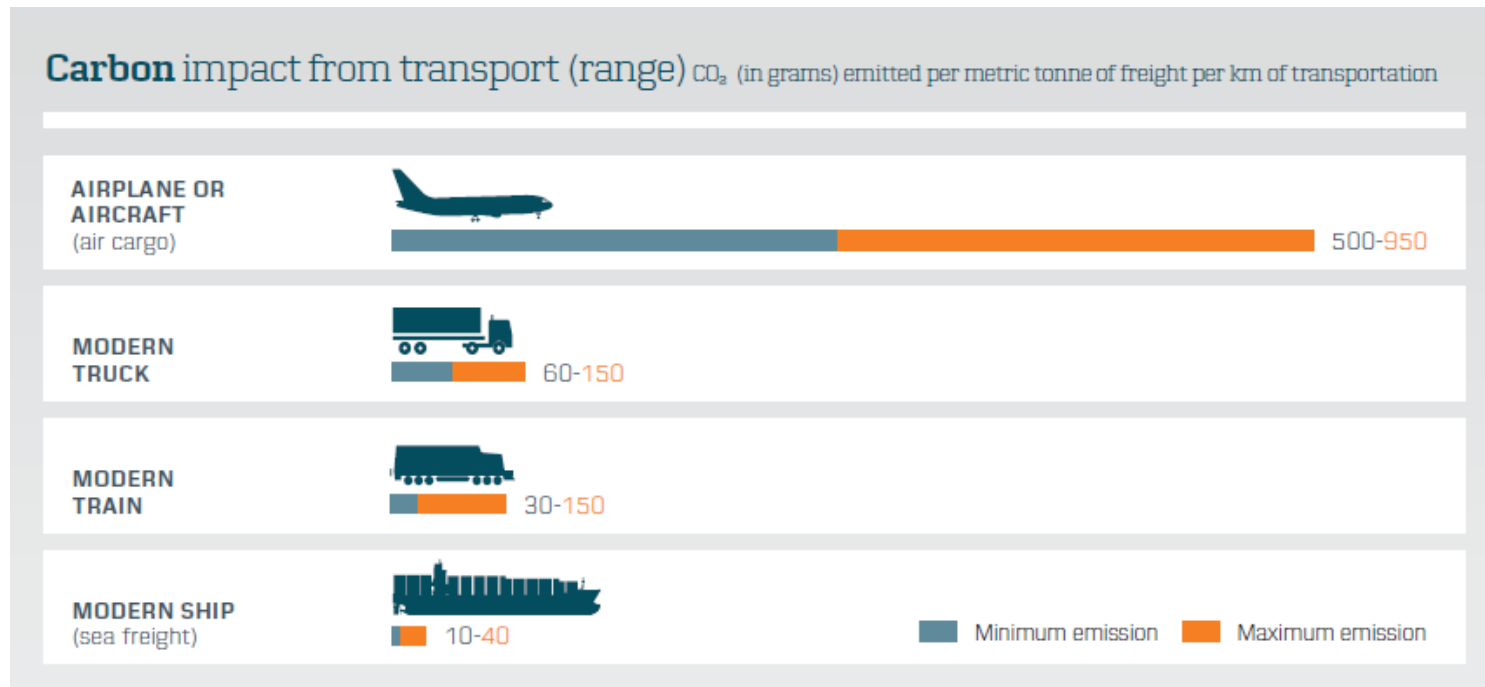


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As a starting point, container shipping is already quite energy efficient...

A Maersk Line vessel does not require much energy compared to flying an airplane, for example



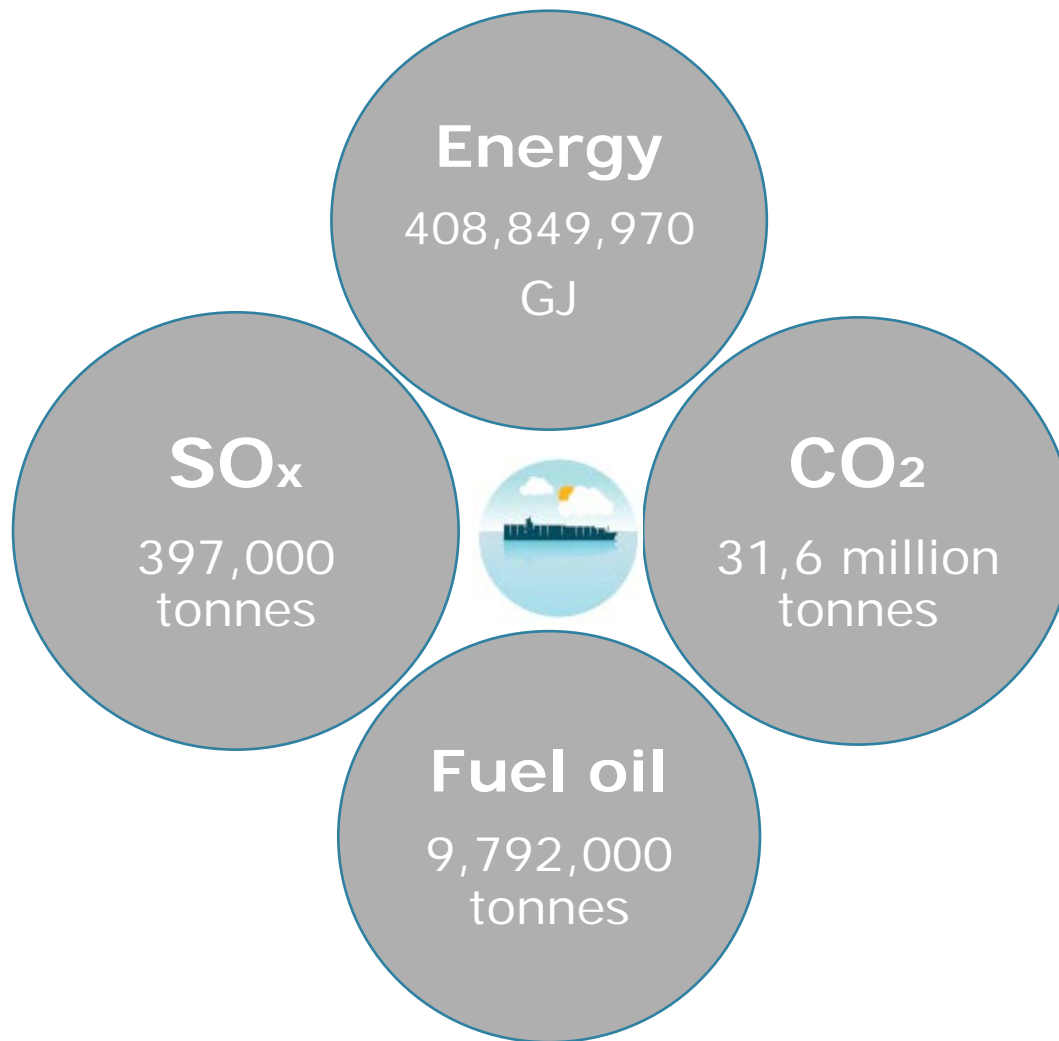
... compare it to going for a short drive to your local store

Example: One pair of shoes



18 times the emissions for 0.1% of the distance made by a small and efficient car

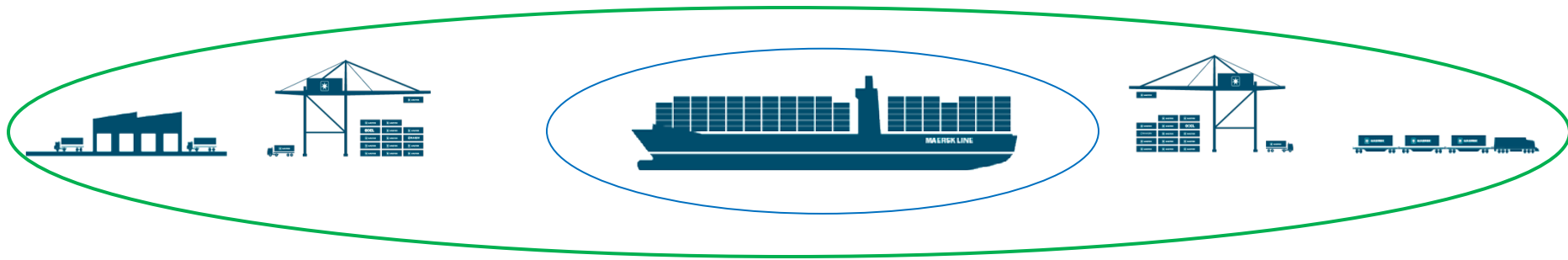
There is much room for improvement...



Million tons	2009	2010	+/-
Energy	436,369,714 GJ	408,849,970 GJ	↓
Fuel	10,392	9,792	↓
CO ₂	33,732	31,588	↓
SO _x	425	397	↓

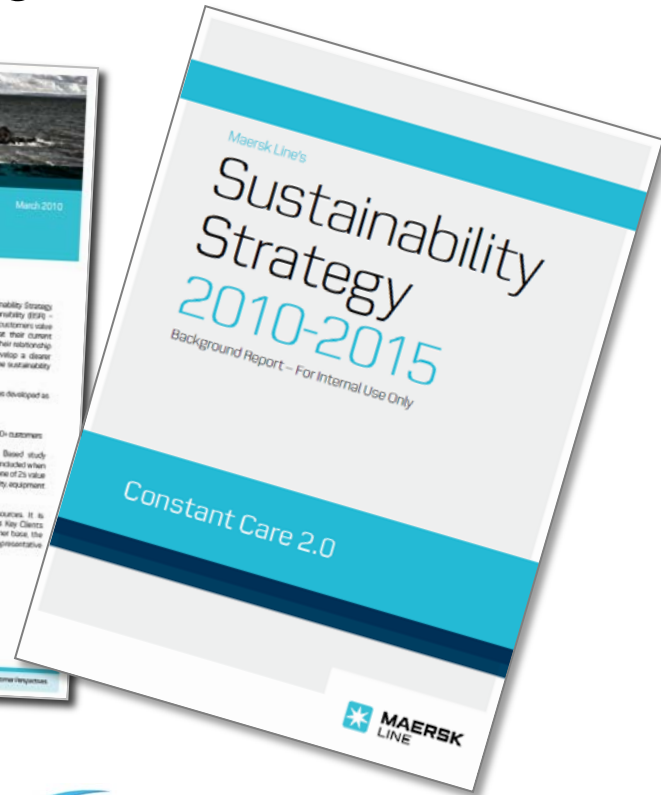
Maersk Line's sustainability **vision**

We will be known as the **industry leader** based on our efforts **to drive superior sustainability performance in global supply chains**, to the benefit of customers, employees and society at large



To accomplish this vision we must view a broader scope than just the ocean carriage, and we must select the appropriate business partners

We now have a strategic partnership approach to sustainability



Strategic partnerships for improvement

Maersk Line has teamed up with NGO's, international organizations and sustainability initiatives to improve and drive transparency on performance



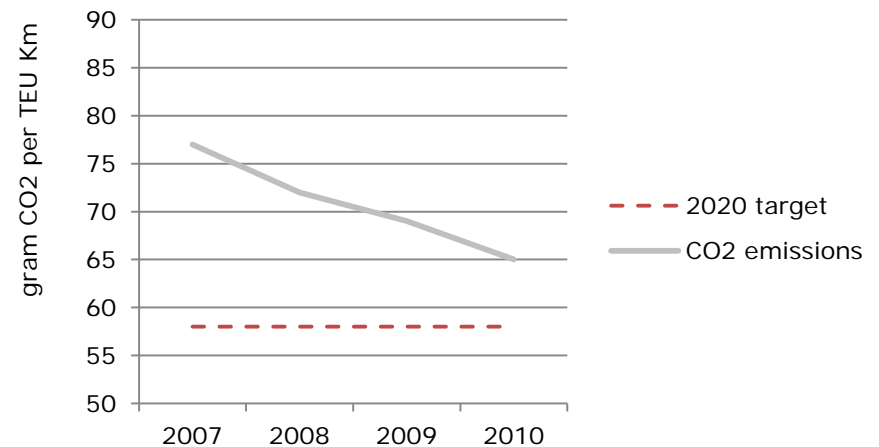
First shipping line to receive **independent verification** of CO2 emission data – vessel by vessel!



Maersk Line has **reduced the CO2** emissions significantly

- By end 2010 Maersk Line has **reduced CO2 emissions by more than 16%** from 2007 levels.
- Independently verified performance data is a crucial prerequisite for **credible CO2 data** and industry benchmarking.

Average CO2 emissions from Maersk Line vessels – Owned and chartered



Verified by:

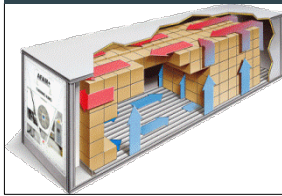


Internal initiatives

Technology Retrofit



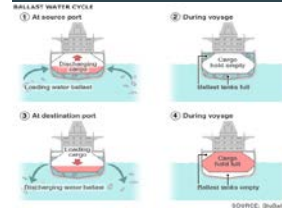
Low energy reefers



Green vessels



Ballast water



Scrubber technology



Alternative fuels



Fuel switch



Waste disposal



Chartered vessel efficiency



Initiatives with suppliers

Triple-E



Economy of scale
Energy efficient
Environmentally improved

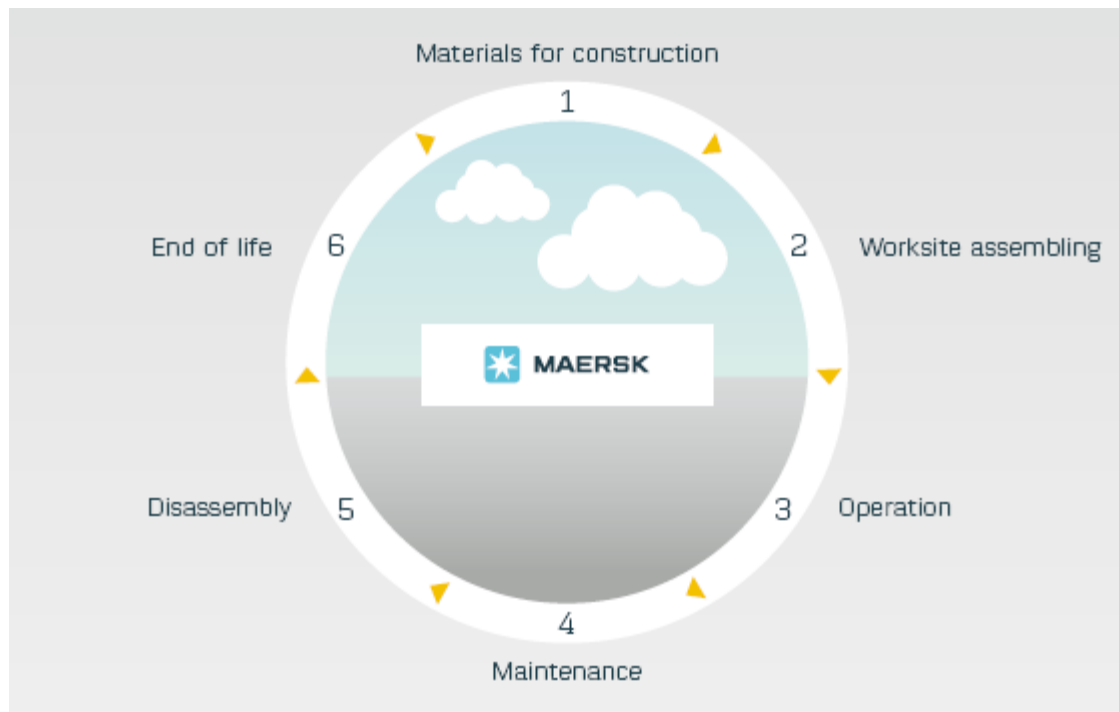
Introducing the **Triple-E vessels**

- **Economy of scale:** 18,000 TEU capacity, 25% lower slot cost than other new built vessels.
- **Energy efficiency:** Designed for slow steaming, two super long-stroke engines, waste heat recovery
- **Environmentally improved:** 50% less CO₂ per container moved. Cradle to Cradle Passport



Cradle-to-cradle

Partnership with EPEA to optimize and innovate process to meet the demand for more sustainable containers.



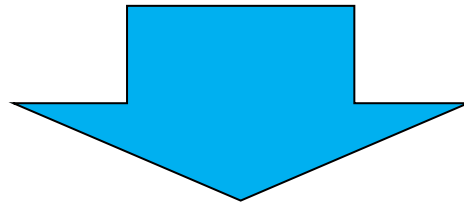
Terminal Performance and Reliability

- Why?
 - Product guarantee
 - Customer satisfaction
 - Asset optimisation
 - Reduction of **WASTE**
 - Waste in the supply chain has a direct negative impact on the environment



Performance and metrics

- ML aims for 100% reliability.
- 2 key initiatives will take us there:
 - Slow steaming: Here to stay.
 - Terminal partnering: Joint approach to reducing port stay and variance

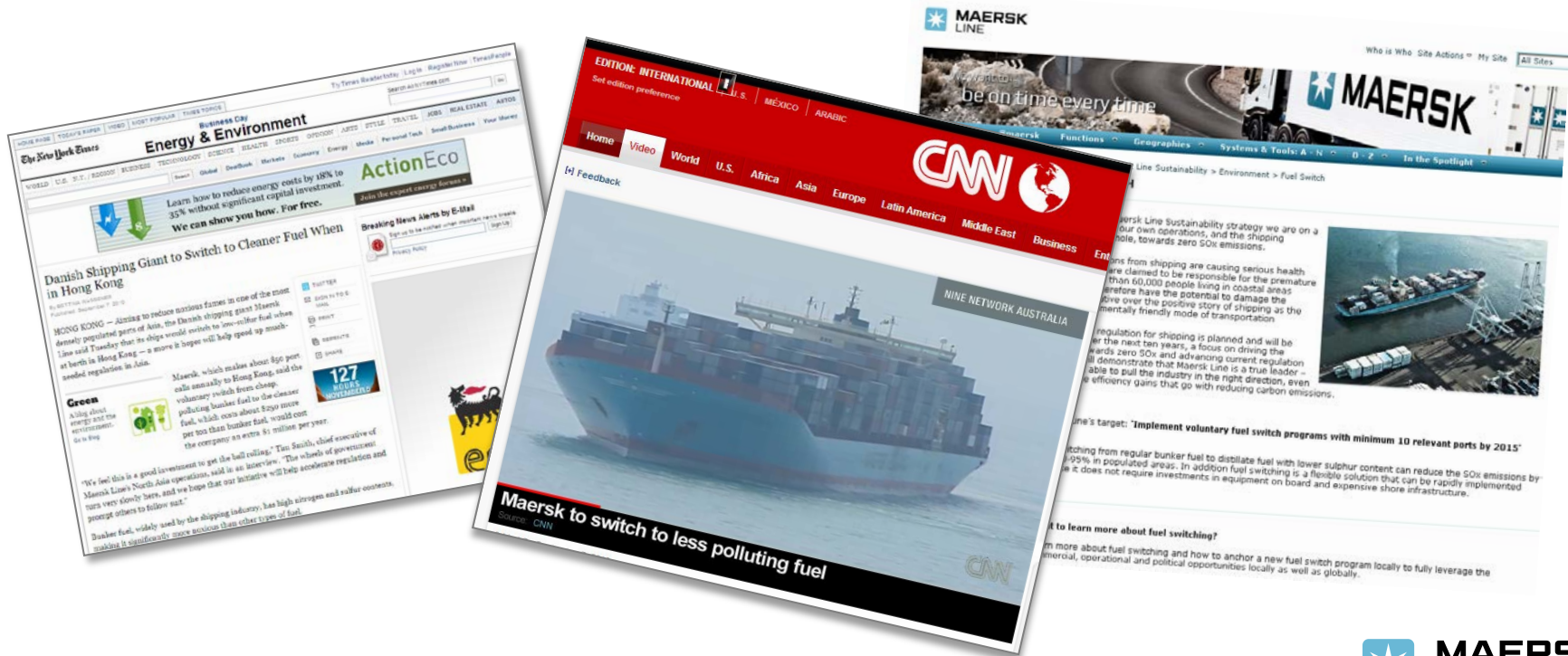


- Reduced bunker spend on contingencies
- Reduced emissions
- Less resources required from terminal = less energy consumption

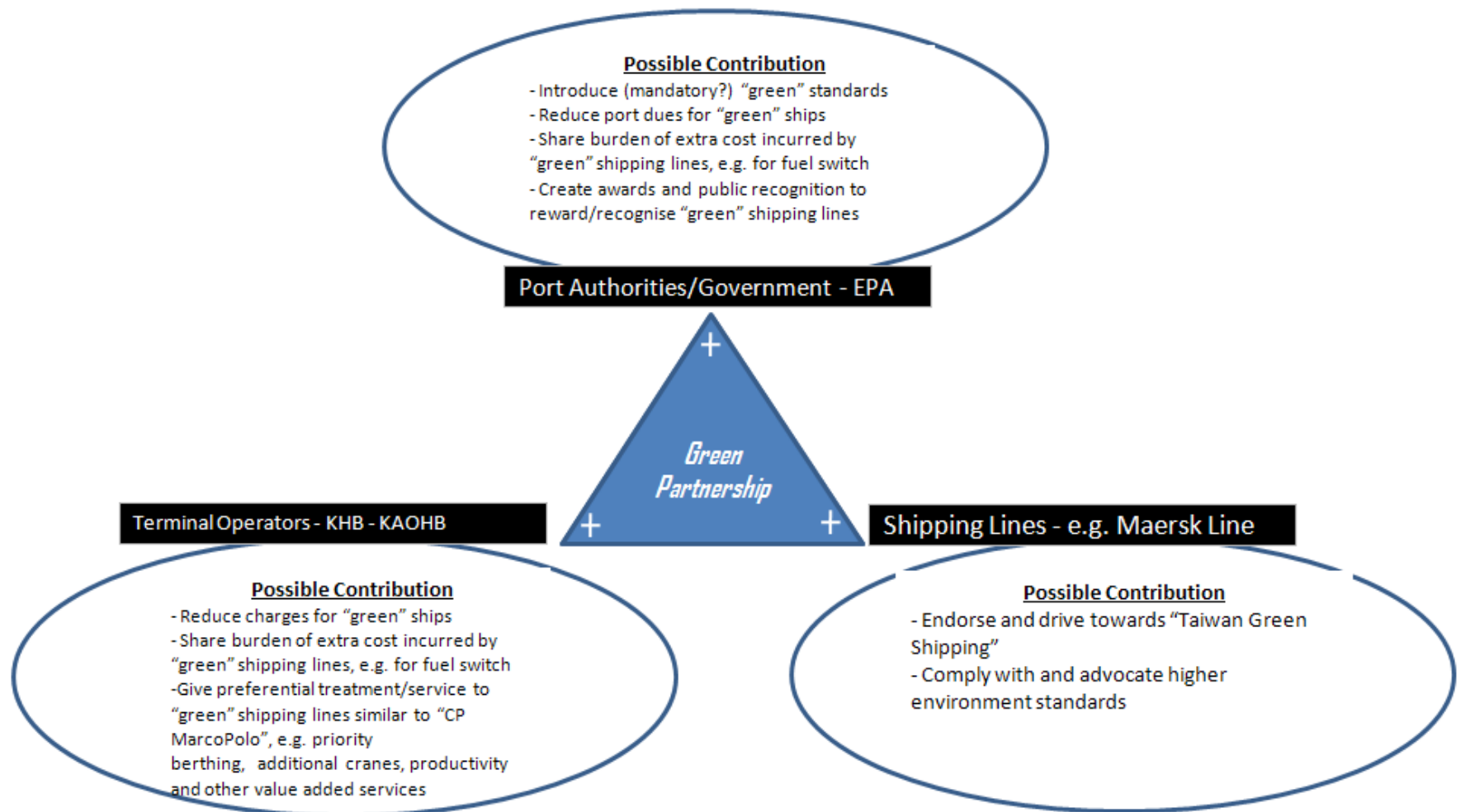
Switching to cleaner fuels

Maersk Line global 'Zero SO_x programme'

Target: 10 fuel switch programmes by 2015



A joint OPPORTUNITY and RESPONSIBILITY!



Summary

The shipping industry has :

- a good platform to contribute positively to global environmental challenges, whilst still providing efficient transportation to support world trade
- a tendency to be self controlling without any regulations
- also still some major challenges (opportunities for improvement)

To be really successful in addressing environmental performance :

- shipping needs its customers, regulators, and other stakeholders (including the general public) to demand shipping companies take action to improve environmental performance, set high standards, and select and reward the best performing carriers

Or, in short :





To be truly successful we need **support from all of you!**

Thank You!